REMARKS

Claims 13-16, 20-22, 30, 43-60 and 62-68 presently appear in this case. Claims 13-16, 30, 43-49, 51-58, 60, 62 and 63 have been allowed. Claim 20 has been objected to, and the remaining claims have been rejected. The official action of November 9, 2000, has now been carefully studied. Reconsideration and allowance of all the claims now present in the case are hereby respectfully urged.

Briefly, the present invention relates to cDNA sequences which encode polypeptides that bind to TRAF2 and modulate activity of NF-κB as well as the polypeptides encoded by those DNA sequences. Preferably, the polypeptide is NIK. The invention also relates to antibodies, methods of identification and screening ,and antisense DNA.

It is noted with appreciation that the examiner has considered and approved the proposed drawing corrections filed on April 19, 2000, and that the examiner has accepted the sequence listing filed on the same date.

Claim 20 has been objected to under 37 C.F.R. §1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. The examiner states that claim 20 does not further limit claim 53, since claim 53 is already limited to SEQ ID NO:7. This objection is respectfully traversed.

It is respectfully pointed out that claim 53 is not "limited to SEQ ID NO:7" as the examiner states. Claim 53 states that "said polypeptide of (a) is the polypeptide encoded by the nucleotide sequence of SEQ ID NO:6 (NIK (SEQ ID NO:7))." Thus, claim 53 only limits (a) of claim 51 to SEQ ID NO:7. Claim 51(b) and (c) are still part of claim 53. Thus, claim 53 reads on SEQ ID NO:7 or a fragment (sub-paragraph (b) of claim 51) or an analog (sub-paragraph (c) of claim 51), or a derivative (sub-paragraph (d) of claim 51) thereof. Claim 20 essentially eliminates the analogs and derivatives. Thus, claim 20 is not of identical scope with claim 53. An analog of SEQ ID NO:7, for example, could infringe claim 53 but could not infringe claim 20. Reconsideration and withdrawal of this objection are, therefore, respectfully urged.

Claims 21-24, 26, 50, 59 and 61 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The examiner states that in claims 22, 26 and 50 the phrase "active fragment" is vague and indefinite since it is unclear what the claimed "active fragment" is a fragment of.

Claims 22 and 50 have now been amended to specify that the active fragment is a fragment of the antibody. Claim 26 has been deleted without prejudice toward the continuation of prosecution thereof in a continuing application. Accordingly, this part of the rejection has now been obviated.

The examiner states that the term "suitable" in claims 23 and 26 (and presumably also claim 21) is vague and indefinite. This part of the rejection has been obviated by the deletion of claims 23 and 26 without prejudice toward the continuation of prosecution thereof in a continuing application and the deletion of "suitable" from claim 21, as per the examiner's suggestion.

The examiner states that claim 59 recites "a DNA sequence capable of binding to a sequence of (1) under moderately stringent conditions", but that this phrase is vague and indefinite since (1) is a polypeptide and not a DNA sequence.

The examiner is correct and applicants thank the examiner for noticing this clerical error. Claim 59 has now been amended in order to clarify this point, thus obviating this part of the rejection.

The examiner also objects to the term "suitable" in claim 61. However, the deletion of claim 61 without prejudice toward the continuation of prosecution thereof in a continuing application obviates this part of the rejection.

Claims 23-26, 32, 33 and 61 have been rejected under 35 U.S.C. §112, first paragraph.

All of these claims have now been deleted without prejudice toward the continuation of prosecution thereof in a

continuing application in order to expedite the allowance of the present application. Accordingly, this rejection has now been obviated.

Claims 23 and 61 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Claims 23 and 61 have been deleted without prejudice toward the continuation of prosecution thereof in a continuing application, thus also obviating this rejection.

New claim 64 has now been added which is identical to previously-appearing claim 46 but dependent from claim 62. Furthermore, previously-appearing claim 46 has now been amended so as to depend from claim 53, rather than claim 51. These claims should be allowable for the same reason as the claims from which they depend and in view of the previous indication of allowability of claim 46.

New claims 65-68 have been added which are substantially the same as previously appearing claims 63, 13, 16 and 21, but depending ultimately from claim 53. These claims should be allowable for the same reasons as the claims from which they depend, particularly in view of the indication of allowability of claims 63, 13 and 16 and the expected indication of allowability of claim 21 as amended. These

claims are being entered in anticipation of an interference proceeding with U.S. patents 5,843,721 and 5,844,073.

It is submitted that all the claims now present in the case clearly define over the references of record and fully comply with 35 U.S.C. §112. Reconsideration and allowance are, therefore, earnestly solicited.

Respectfully submitted,

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Version with Markings to Show Changes Made

21. A method for producing a ~~TRAF-binding protein, isoform, fragment, analog or derivative thereof, which comprises~~polypeptide that binds to TRAF2 and modulates activity of NF-κB, comprising:

growing a transformed host cell according to claim 16 under conditions ~~suitable~~ for the expression of said ~~protein, isoform, fragment, analog or derivative thereof,~~polypeptide;

effecting post-translational modification, as necessary, for obtaining said ~~protein, isoform, fragment, analog or derivative thereof,~~polypeptide; and

isolating said expressed ~~protein, isoform, fragment, analog or derivative~~polypeptide.

22. An antibody, active fragment of the antibody, or derivative thereof, specific for a polypeptide according to claim 51.

46. A method for identifying and producing a ligand capable of modulating the cellular activity modulated or mediated by a polypeptide according to claim ~~51~~53, comprising:

a) screening for a ligand capable of binding to ~~a~~ said polypeptide ~~comprising at least a portion of the NIK sequence of SEQ ID NO:7~~;

b) identifying and characterizing a ligand, other than TRAF2 or portions of a receptor of the TNF/NGF receptor family, found by said screening ~~step~~ to be capable of said binding; and

c) producing said ligand in substantially isolated and purified form.

50. An antibody, active fragment of the antibody, or derivative thereof, specific for a polypeptide according to claim 53.

59. A DNA sequence encoding

(1) a polypeptide in accordance with claim 53, or

(2) a polypeptide that binds to TRAF2 and modulates the activity of NF-κB and is encoded by a DNA sequence capable of binding to a DNA sequence encoding the sequence of (1) under moderately stringent conditions.